PART B – CAPITAL IMPROVEMENT CONSTRUCTION PROJECTS SUBJECT TO SBAC PROCEDURES

CHAPTER 5 – DESIGN SERVICES

1.0 General Information

1.1. The policies and procedures contained in this section are for Capital Improvement Projects designed by a Project Architect/Engineer under contract with the Department of Administration. Not every item will apply to every capital improvement project and should be determined with the Negotiating Committee on large projects and with the agency on on-call projects.

1.2. When the Project Architect/Engineer's construction estimate exceeds the agency's programmed construction budget, approved at the initial fee negotiation, it is the responsibility of the Owner to assist the firm in identifying options and means (including a decrease in scope, material selection, and/or alternates, etc.) to bring the firm's estimate within the programmed budget.

1.3. The Owner will inform the Project Architect/Engineer which level of service DCC is providing per Part A - Chapter 1. This will determine the amount of participation by DCC architect/engineer and inspectors.

2.0 Concept and Schematic Design

2.1. The Project Architect/Engineer shall involve all necessary consultants and develop at least three alternative solutions to the design of the capital improvement project. The alternative solutions shall (when applicable) be within the structure of the agency's program and shall address but not be limited to:

2.1.1 Approach to code compliance for life safety issues, per Part A – Chapter 5.

2.1.2 Accessibility compliance, per Part A – Chapter 5.

2.1.3 Site limitations, including utilities.

2.1.4 Building location on site.

2.1.5 Vehicular and pedestrian circulation.

2.1.6 Number of floors.

2.1.7 Arrangement of programmed spaces

2.1.8 Itemized inventory of programmed space, indicating surplus or deficiency.

2.2. Concept and/or schematic design submittal shall include the items listed below and shall follow the submittal and review procedures listed in Part A- Chapter 4.

2.2.1 Code footprint per Part A - Chapter 5 and compliance with all other applicable codes, standards and laws, including accessibility.

2.2.2 Site plan showing the location of the building on the site, illustrating the practical use of the natural topography and indicating existing utility locations, service routes, drives, parking, pedestrian traffic ways and expansion possibilities if required by the program.

2.2.3 Floor plans showing room arrangement, designation, size and changes in floor elevation.

2.2.4 Elevation sketches of the exterior indicating the general architectural character of the building.

2.2.5 As a minimum, single-line drawings showing mechanical, electrical and plumbing equipment locations, preliminary ductwork and proposed piping runs, routing of major utilities, i.e. sewer and water, and all other engineering elements required for coordination.

2.2.6 Concepts and studies of systems required by the program or fee negotiations.

2.2.7 Written statement giving the total gross area of the building and estimate of construction costs.

2.2.8 Special considerations.

2.2.9 Compliance with applicable federal regulations due to a federal agency's involvement in the project.

2.2.10 LEED Plan, if applicable.

2.2.11 Special considerations

3.0 Design Development

3.1. The design development submittal shall include the items listed below and shall follow the submittal and review procedures listed in Part A - Chapter 4. This submittal should demonstrate a complete understanding of the design requirements to the Owner and should identify items of particular interest to the Owner.

3.1.1 The Form 123 - Construction Document Checklist available at http://www.da.ks.gov/fp/manual.htm#PlanningForms is to be used throughout the entire design and construction document phases of the project. It is intended to assist the design team to provide a complete set of construction documents.

3.1.2 Code footprint per Part A - Chapter 5 and compliance with all other applicable codes, standards and laws, including accessibility.

3.1.3 Energy Code Compliance. Reference Part A - Chapter 5.

3.1.4 Site plan showing the location of the building on the site, illustrating the practical use of the natural topography, expansion possibilities if required by the program, utility locations and potential connections, and vehicle and pedestrian circulation including but not limited to streets, service drives, parking and sidewalks.

3.1.5 Knowledge and indication of problems of rock excavation or controlled backfill.

3.1.6 Floor plans showing room arrangement, overall dimensions of the building(s) and spaces room arrangement, door swings, casework, special equipment and features, furniture arrangement, designation, size and fixed equipment layout.

3.1.7 Elevations showing all exterior wall surfaces.

3.1.8 Building sections including longitudinal and transverse sections showing major structural components.

3.1.9 Wall sections showing typical and special wall construction.

3.1.10 Special interior wall sections

3.1.11 Preliminary finish schedule.

3.1.12 Structural concept showing the location, type and tentative size of structural members.

3.1.13 Mechanical plans showing mechanical room layouts, locations of major equipment and preliminary two-line ductwork layouts. Mechanical room layouts must accommodate more than one manufacturer. Provide graphical indication of code required maintenance/access spaces.

3.1.14 Update the written description provided with the concept design to reflect any changes in the systems/equipment or approach to the design, including energy code compliance.

3.1.15 Provide a written description of the HVAC control systems with a general outline of function and sequence of operation.

3.1.16 Plumbing concept showing pipe chases and roof drainage system. Plumbing designs for laboratories or other special facilities, materials, and designs requiring pumping shall also be included.

3.1.17 Electrical concept showing the power source, service to the building, panel locations, types of fixtures, and the foot candle levels. Also included shall be primary and secondary voltages to be used and design criteria for unusual or special electrical requirements. Provide graphical indication of code required maintenance/access spaces.

3.1.18 Fire Alarm concept showing panel location(s) and a description of the system. Project Architect/Engineer will review minimum design requirements to be shown on construction documents.

3.1.19 Fire Suppression concept showing the service entry including back flow preventor, the main drain/inspector test station and a description of the system. Project Architect/Engineer will review minimum design requirements to be indicated shown on construction documents.

3.1.20 Specifications outline shall include a brief yet concise description of all building systems including methods, materials and finishes. All building components shall be outlined in sufficient detail to afford judgment discussions concerning quality and performance. Include material cut sheets as required to convey a complete understanding of the materials used.

3.1.21 Compliance with applicable federal regulations due to a federal agency's involvement in the project.

3.1.22 Updated written statement giving the total gross area of the building and a**n** estimate of all construction costs.

3.1.23 Rendering when negotiated as part of the firm’s contract.

4.0 End of Design

4.1. Upon the approval of the design development submittal, a design freeze will occur. Significant changes necessary during subsequent phases will be resubmitted for approval.

5.0 Construction Documents

5.1. The Form 123 - Construction Document Checklist, found at http://www.da.ks.gov/fp/manual.htm#PlanningForms, will be used to provide a complete set of construction documents.

5.2. Formatting information for drawings and specifications can be found in Part A – Chapter 6.

5.3. Construction document submittals to be provided per Part A – Chapter 4.

5.4. End of construction document phase occurs when the agency and DCC concur that the construction documents can be posted for bidding.

5.5. Submittals of bid document deliverables to follow requirements in Part A – Chapter 6.

6.0 Delays in Issuing Bid Documents

6.1. Issuance of bid documents for Capital Improvement Projects are delayed when DCC receives bid documents that are not “bid ready”.

6.2. To aid the Project Architect/Engineer in producing accurate bid documents please refer to DCC Form 300 Bid Document Deliverable Checklist at http://www.da.ks.gov/fp/manual.htm#PlanningForms submittal requirement in part A – Chapter 4.

6.3. DCC will notify each Project Architect/Engineer that their bid documents are not “bid-ready”. A list of incorrect items will not be given, but attention to the following items.

6.3.1 Use the latest DCC 305 Front End Data Form.

6.3.2 Use proper font styles & formats, margin settings and headers/footers for Division 01 and technical specifications

6.3.3 Edit the Division 01 specifications so they are project specific.

6.3.4 Coordinate Division 01 specifications with DCC's front end specifications.

6.3.5 Verify that the DCC project number is correct and is on each drawing sheet(s).

6.3.6 Alternates should be provided in whole numbers.

END OF CHAPTER